Topographically Speaking

UNITED STATES GEOLOGICAL SURVEY
MID-CONTINENT MAPPING CENTER, ROLLA, MO.

****

July-August 1980 — GEOLOGICAL SURVEY, NATIONAL MAPPING DIVISION, 1400 Independence Road, Rolla, Missouri 65401 — Vol. 3 No. 6

****

EDITORIAL STAFF

R. D. Yenzer . . . . . .Editor
J. C. Earl. . . . . Associate Editor
H. C. Meaux. . . . . .Plans & Production
P. D. Lampert . . . . . .Cartography
H. P. Wallis . . . . . .Photogrammetry
L. C. Bennett . . . . . .Field Surveys
L. L. Jontz . . . . . Sports
R. J. Southard . . . . . .Typist
W. B. McComb. . . . . .Photographers
C. J. Forbes
J. J. Wynn. . . . . Illustrators
J. C. Earl

****

This month's cover illustration is a reproduction of a Perspective projection of the world centered on Rolla, Missouri, Constructed using the Cartographic Automatic Mapping (CAM) package and MCMC's Gerber 4477 plotting system, the original graphic was produced entirely from automated sources.

The Perspective projection differs from a conventional Orthographic projection by presenting a view of the Earth from a point in near space. An Orthographic projection, by contrast, positions the observer at infinity. After reduction for publication, the cover's graphic represents the world as viewed from an orbital altitude of 12,500 nautical miles.

Drafted automatically using the Gerber plotter's Optical Exposure Head (OEH) and positive film the total elapsed plotting time approximated 30 minutes. The exposed film was processed conventionally in the Mapping Center's Photo Lab.

Photoplotting is a recent innovation that allows the Cartographer to construct highly aesthetic maps and map separates from digital sources using a dimensionally stable, reproducable graphic medium. The OEH is designed around a xenon flash lamp which flashes on and off when commanded by instructions read off a magnetic plot tape. The light is focused through a series of lenses and a pinhole-like aperture that focuses the beam of light to a desired line weight. A series of rapid contiguous exposures defines a line of specified length.

The CAM mapping program is a small-scale general-purpose mapping package that performs a wide variety of cartographic plotting tasks. Program options allow the user to select from 16 map projections and 14 geometric and cartographic features. Primarily designed to work with data sets from the World Data Bank I and II, CAM has been enhanced considerably by NMD personnel.

Tom DiNardo

****

NEW CHIEF OF RMMC

John D. McLaurin has been named chief of the U.S. Geological Survey's Rocky Mountain Mapping Center at the Denver Federal Center, succeeding the retired Albert E. Letey.

John L. Heller was named assistant chief of the mapping center and will share responsibilities with McLaurin for overall management.

McLaurin joined the USGS in 1960 at the Survey's Western Mapping Center in Menlo Park, Calif., as a civil engineer. From 1967 to 1972, he was in McLean, Va., working as a research civil engineer in photogrammetry and remote sensing.

In 1972, McLaurin transferred to the Survey's national headquarters (then in Washington, D.C.) as a program analyst in the office of the USGS director. Two years later he became deputy chief of the Survey's National Cartographic Information Center after the Survey moved its headquarters to Reston, VA. In 1976, he became deputy chief of the Office of Plans and Program Development.

McLaurin received a bachelor's degree in civil engineering in 1961 and a master's degree in civil engineering in 1965, both from the University of Michigan, and was admitted to candidacy for a Ph.D. in forestry and remote sensing from Michigan in 1970.

He received the Interior Department's second highest award, the Meritorious Service Award, in 1977.

Heller joined the USGS in 1961 in Silver Spring, Md., as a technical publications editor for geology. He transferred to Denver in May, 1964, to establish and manage the Denver Editorial Section, the first field office of the Survey's former Branch of Texts. In August, 1973, he was named the first regional manager of the Publication Division for the Central Region.

Heller received a bachelor's degree in geology from the College of Wooster in Ohio in 1957 and a master's degree in geology from the University of Tennessee in 1959.

He received the Interior Department's Meritorious Service Award in May, 1980.

****

NEW ASSOCIATE DIRECTOR OF USGS NAMED

Doyle G. Frederick, 44, of Vienna, Va., has been officially named associate director of the U.S. Geological Survey, Department of the Interior. He has held the Survey's second ranking post in an acting capacity since February when he replaced Joseph S. Cragwall, Jr., who retired after nearly 40 years of federal service..

As associate director, Frederick will share with USGS director Dr. H. William Menard in directing and supervising the activities of the Survey, the largest earth science research agency of the federal government.

Frederick, with more than 20 years of federal service, joined the USGS in 1973. A nationally recognized authority in cartographic and geodetic research,

he has been the associate chief of the Survey's National Mapping Division, one of the agency's major divisions, and the nation's largest civilian mapping operation.

Frederick was born in Iuka, Miss. He received a bachelor of science degree in mathematics from Bethel College, Tenn., in 1957, and studied dynamical astronomy at the University of Cincinnati Graduate School from 1960 to 1961. He also attended the Federal Executive Institute in 1974.

During his professional career, Frederick has played a key role in helping to organize and improve federal mapping organizations and programs in both civilian and military agencies.

From 1957 to 1965, Frederick served as a researcher and staff officer in the areas of cartography, mathematics, and geodesy at the Aeronautical Chart and Information Center, St. Louis, Mo. From 1965 to 1971, he was program manager in the Defense Department's Mapping,

Charting, and Geodesy Directorate, with responsibilities in the fields of geodesy, gravity, hydrography, airborne electronic and photographic surveys and photogrammetry. He also served as the Defense Department's representative to the 1972-1973 Federal Mapping Task Force Report which reviewed for the Office of Management and Budget improved ways for organizing and using the nation's cartographic resources to meet national needs. From 1973 to 1979, he served as the chief, Office of Plans and Program Development in the USGS Topographic Division, and also was responsible for the federal mapping coordination, international activities and the Survey's National Cartographic Information Center.

In recognition of his contributions to the surveying and mapping profession, Frederick received the Defense Department's Outstanding Performance Award in 1967 and 1970 and Meritorious Service Award in 1973; the Interior Department's Meritorious Service Award in 1976; and the Geological Survey's Superior Performance Award in 1979.

****

SATELLITE DATA INDICATES
EARTH MAGNETIC FIELD CHANGING

Magsat, a small relatively inexpensive NASA satellite, is providing scientists with data to make the most accurate maps ever of the Earth's magnetic field.

Initial data from these investigations, published by scientists at NASA's Goddard Space Flight Center, Greenbelt, Md., include further confirmation of the changing nature of the Earth's magnetic field.

Magsat is equipped with two magnetometers, one to measure the magnitude and the other the direction of the Earth's magnetic fields.

Using data gathered from the satellite, scientists have compiled models, or maps, of the Earth with contour lines that delineate regions of abnormal magnetic intensities. It is believed that these magnetic anomalies are related to movement of the Earth's crust and may provide important clues to geologists in search of new mineral and petroleum deposits.

Scientists from the United States and eight other countries--Australia, Brazil, Canada, France, India, Italy, Japan and the United Kingdom--are studying Magsat data in 32 investigations in six general categories: geophysics, geology, field modeling, marine studies, magnetosphere/ionosphere and core/mantle studies.

The principal user of Magsat data, the U.S. Geological Survey of the Department of the Interior, has cooperated closely with NASA in setting mission objectives and is participating in the data analysis.

Magsat data will be used by the Geological Survey in its publication of updated magnetic field charts and maps in 1980-81 for navigation and geological use.

****

AMERICAN SOCIETY OF PHOTOGRAMMETRY NEWS

John Van Horn has been accepted as a "Certified Photogrammetrist" and his name appeared with two other MCMC employees, Charles Croom and Henry Svehlak, in the July 1980 yearbook issue of Photogrammetric Engineering and Remote Sensing.

Information on the voluntary certification program can be obtained from ASP Headquarters or by contacting Messrs. Croom, Van Horn, or Glenn Osick. The Program was established in 1975 to enable qualified applicants to be officially recognized in the photogrammetry discipline. The cost is $35.00, which is remitted with the official questionnaire. The ASP Board of Certificiation reviews all applications for compliance with the basic requirements and the certificate is awarded only if all of the requirements are met.

*Join ASP -- We Need Your Membership!!!!

****

FIRST NATIONAL MAPPING STAFF CONFERENCE, May 12-15, 1980, Reston, Va.

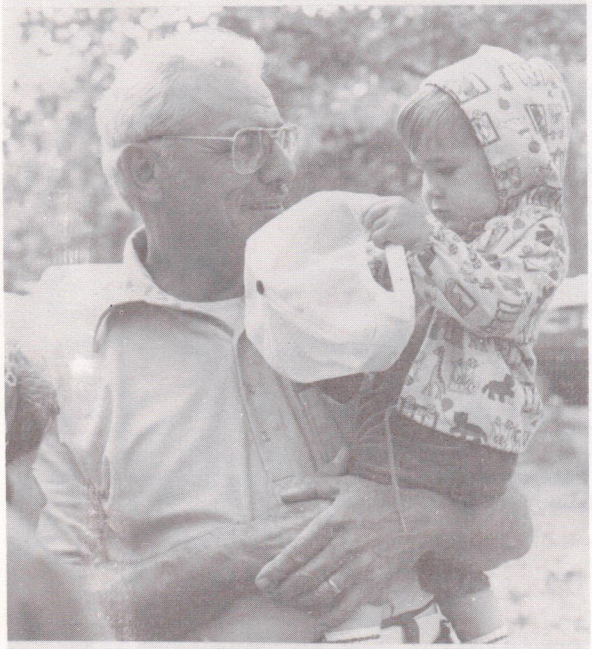
Front row, left to right: Virginia G. Miles, Coordinator for National Mapping Division Reorganization; Rupert B. Southard, Chief, National Mapping Division; Lawrence H. Borgerding, Chief, Mid-Continent Mapping Center.

Second row: Roy E. Fordham, Acting Chief, Eastern Mapping Center; John R. Swinnerton, Chief, Western Mapping Center; Peter F. Bermel, Acting Assistant Division Chief for Plans and Operations; John D. McLaurin, Chief, Rocky Mountain Mapping Center.

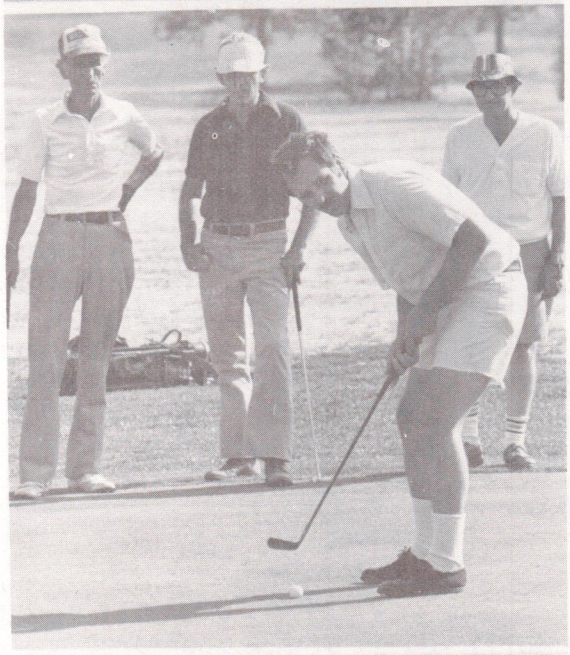
Third row: Gary W. North, Acting Assistant Chief, Information and Data Services; Roy R. Mullen, Acting Assistant Division Chief for Research; Allen H. Watkins, Chief, EROS Data Center; Lowell E. Starr, Acting Associate Division Chief; Larry L. Amos, Assistant to the Chief, National Mapping Division.

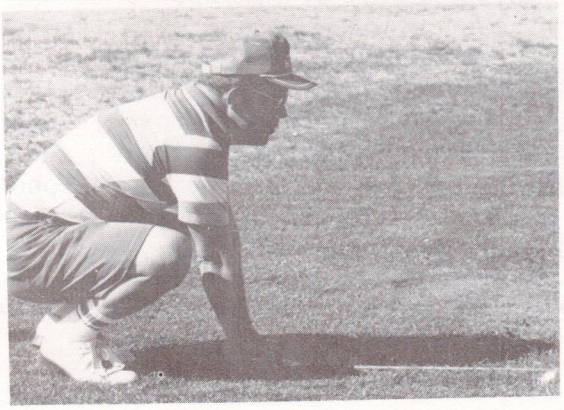
Back row: Lewis D. Brown, Acting Chief, Printing and Distribution Center; James R. Anderson, Chief Geographer.

IT'S PICNIC TIME AGAIN



Ummels Bums have won the USGS Golf League scrambles. Members of the team are: Otis Ummel, team captian; Mark Berg, Pat Hensley, John Frank, Ed Hodge and Neil Schwartz.





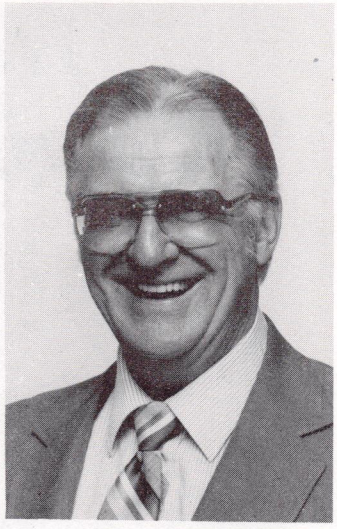
RETIREES

Leslie B. Robison, Mid-Continent Mapping Center, retired on July 3, 1980, after completing nearly 33 years of Federal service.

Mr. Robison began his Federal career in the U.S. Army in 1943. After discharge in 1946, he entered the Missouri School of Mines and Metallurgy (UMR) and graduated with a B.S. degree in Civil Engineering in 1950. Les started his Geological Survey career in March of 1950, in the Field District, Branch of Field Surveys. For 16 years he had field assignments in 14 Mid-Continent Mapping Center States and in 4 Eastern Mapping Center States, as well as an Antarctic assignment in 1960-61. Les was promoted in March 1966 to the position of District Engineer, presently designated as District Chief, the position from which he retired.

****

Stanley B. Brady, Mid-Continent Mapping Center, retired on June 27, 1980, after completing almost 36 years of Federal Service.



Mr. Brady began his Federal career in the U.S. Army in 1940. After discharge in 1945, he entered the Missouri School of Mines and Metallurgy (UMR) and graduated with a B.S. degree in Metallurgical Engineering. Stan started his Geological Survey career with the Branch of Photogrammetry in 1949. He entered the Engineer Training Program and engaged in various office and field assignments. After completion of the program, Stan was assigned to the Branch of Photogrammetry where he served in a variety of supervisory positions. In 1974 Mr. Brady was promoted to Chief, Stereo-plotting Unit, and it was from this position that he retired.

****

Lawrence P. Brune, Mid-Continent Mapping Center, retired on June 27, 1980, with nearly 21 years of Federal service.

Larry served in the U.S. Army from 1941 to 1943. He began his career with the Geological Survey in 1962 as an Instrument Mechanic Helper in the Instrument Maintenance Unit, Office of the Center Chief. He advanced to Mechanic (Instrument), the position from which he retired.

****

ASP NEWS

The Rolla region of ASP sponsored a program on Remote Sensing with the Enviro-Pod. Mr. George Loelkes, Chief of the Rolla Office of Geographic Investigations, was the speaker. George spoke about dealing with photointerpretation and examples of keying the Enviro-Pod photos to various scale photographs in the Land Use and Land Cover Program.

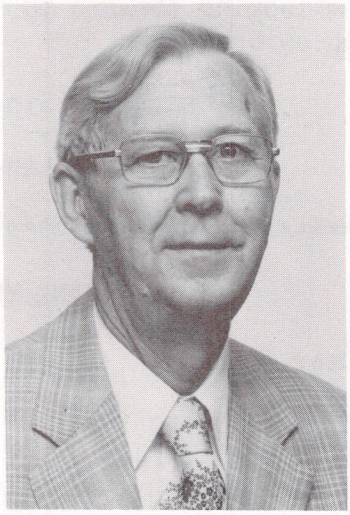
****

Walter I. Mutka, Mid-Continent Mapping Center, retired on June 27, 1980, with nearly 34 years of Federal service.

Mr. Mutka began his Federal career in 1943 with the Bureau of Public Roads, working on the Alaska Highway. He attended the River Falls State Teachers' College and the University of Wisconsin. In 1947 he began his Geological Survey career as an Engineering Aid in the Field District, Branch of Field Surveys, and in 1959 he was reassigned to the Geodetic Section, where he served as a Cartographer, the position from which he retired.

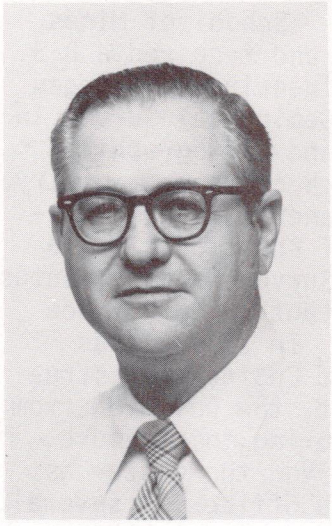
****

Donald T. Nelson, Mid-Continent Mapping Center, retired on June 27, 1980, after completing more than 37 years of Federal service.



Mr. Nelson began his Federal career in the U.S. Army on February 10, 1942, and served until his honorable discharge October 11, 1945. In September 1946 he began his career with the Geological Survey as a field assistant, and in April 1947 he received an appointment as an Engineering Aid (Topo) in the Branch of Field Surveys, Field District. Here he progressed through numerous position titles and grades and many field assignments, and in January 1965 he was promoted to the advanced performance level Cartographic Technician. In July 1969 Don was reassigned to the Field Surveys Inspection Section, from where he retired.

****



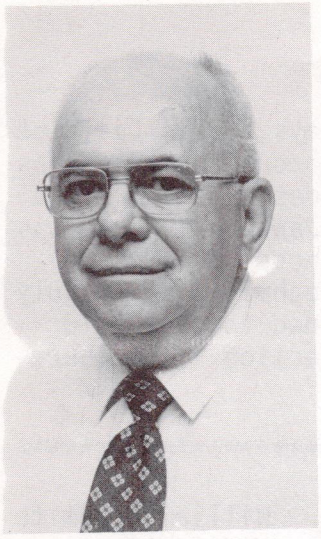
William E. Smith Mid-Continent Mapping Center, retired on June 28, 1980, with more than 30 years of Federal service.

Mr. Smith served in the U.S. Army from 1943 to 1946. After his discharge from the Army, he earned a B.S. degree in Geolog from the University of Oklahoma. He started his Geological Survey career in 1952, serving in the Branches of Field Surveys and Photogrammetry in both the Mid-Continen and Western States. Bill entered the Engineer Training Program in 1959 in th Western Mapping Center. He finished th program in 1962, and returned to the Branch of Photogrammetry, Mid-Continent Mapping Center, in 1963. Except for a 6-month assignment in Saudi Arabia, he served continously in the Branch of Photogrammetry in various supervisory positions. In 1975 Mr. Smith was promoted to Chief, Stereoplotting Unit, a it was from this position that he reti

DID YOU KNOW?

Leland A. Perry was first to arrive on the Perry project at Perry, Iowa, with field storage space located in the Per Professional Building.

****



Floyd M. Teter, Mid-Continent Mapping Center, retired on June 27, 1980, with over 32 years of Federal service.

Mr. Teter served in the U.S. Army from 1942 to 1946. After his discharge from military service, he attended the Missouri School of Mines
ıd Metallurgy (UMR) and received a B.S. :gree in Mining Engineering. He began s career with the Geological Survey in 51 as a Surveying and Cartographic ·ineer in the Branch of Photogrammetry. :rved in this Branch continuously-- n the exception of short details to Branch of Field Surveys and 14 months the Special Assistant .. the Office the Center Chief. In 1969 he was omoted to Equipment Engineer, Instrunt Maintenance Unit, the position from ich he retired. During this tenure, simultaneously served the Center as :ting Administrative Officer at several imes when a vacancy existed in that osition.

****

illiam M. "Max" oight, Mid-ontinent Mapping Center, etired on July 7, 1980, after ompleting more han 31 years of ederal service.

Max served in the U.S. Army Air Corps from 1942 to 1945. He attended Central Missouri State College in Warrensburg, Mo., graduating in 1949 with a B.S. degree in Education. He began his Geological Survey career in 1951 in the Geodetic Section, Branch of Field Surveys. After completing the Engineer Training Program, Max was reassigned to the Branch of Field Surveys, Rocky Mountain Mapping Center, 1963-65. In 1970 he was promoted to Chief, Geodetic Section, Eastern Mapping Center. After an Antarctic assignment in 1974-75, Max became Chief, Users Services Section, NCIC-H, in 1975. In August of 1976, he returned to the Mid-Continent Mapping Center as Chief, NCIC, the position from which he retired.

****

IN MEMORIAM

Dolly Conner, mother of John Conner
Mrs. Mary Eckert, mother of Gerald L Eckert
Dallas V. Robertson, father of Dallas H. Robertson

****

THANK YOU

Thanks for the plumb bob, scroll and generous check which is much appreciated.

Am looking forward to seeing you occasionally.

Sincerely,

Lena M. Hayes

****

THANK YOU

Dear Friends,

I want to thank all of you at the U.S. G.S. for the lovely scroll & plumb-bob I received on my retirement. Both are now in a place of honor in our home, and the scroll is often studied to re-

call the many friends of thirty years.

The nice check is already ear-marked for the new-radio-gear fund.

Thanks again for all these and for many fond memories. I hope to see all of you again.

Sincerely,

Charley Konop

****

THANK YOU

We want to thank the many friends who signed the scroll and contributed to the very generous retirement gift check.

The scroll and plumb bob/bench mark desk ornament arrived in good condition. We are very proud of these two items and they have been placed prominently in our home. They serve as a constant reminder of my happy years with the Survey and the fine people with whom I was associated.

Also, we wish to thank those responsible for the luncheon and reception given us in Rolla last January. It was very much enjoyed and appreciated.

We fully expect to return to Rolla to visit from time to time. Further, we would be very pleased to entertain any Survey friends who may find it possible to vacation in Wisconsin, be it either summer or winter.

Sincerely,

Ted and Marian Allred

****

AWARDS

SUPERIOR SERVICE
Floyd M. Teter

Special Achievement
Mary C. Johnson

30-YEAR SERVICE
William R. Cruts
Jack Gentry

QUALITY INCREASE
Guy D. Bullock
Walter D. Parkinson
Maxine C. Gaddy

SUGGESTION

Thomas DiNardo (C) GS-80-M, Use of varied Pen Points For Digital Plots

PERSONNEL ACTIONS (through August 8)

Accessions
Sherry L. VonKlemen, CA, Br. of Carto., GS-4 (Change to full time)
Roxann L. Crafton, CA, Br. of Carto., GS-4 (Change to full time)

Detail (NTE 90 days)
Arvil C. Harris, C, GS-11,Br. of Photogr Photogr. Oper. Sect., To SC, GS-12, same
Gary W. McKeown, C, GS-11, Br. of Photogr., Photogr. Oper. Sect., to SC, GS-12, same

Detail (NTE 120 days)
Gary H. Raymond, C, Br. of Carto., Carto. Sect., Editing Unit, to same, Off. of the Chief

Termination of Detail (NTE 60 days)
Leona S. Rosenow, CT, Br. of Carto., Prep. Sect., to same, Br. of Carto., Carto. Sect., Comp. Unit.

Termination of Detail (NTE 120 days)
Phillip D. Lampert, C, Off. of the Chief, to same, Br. of Carto., Carto Sect., Editing Unit
Edward F. Haas, CT, Br. of Photogr., Tech. Plan. Sect., Photogr. Contract & Review Unit, to same, Br. of Photogr., Tech. Plan. Sect.
Everett E. Reppond, CT, Br. of Photogr. Tech. Plan. Sect., Photogr. Contract & Review Unit, to same, Br. of Photogr., Photogr. Oper. Sect.
Gilbert O. Schriner, CT, Br. of Photogr Tech. Plan. Sect., Photogr. Contract & Review Unit, to same, Br. of Photogr., Photogr. Oper. Sect.
Myron T. Dake, Photogr. (S&T), Br. of Photogr., Tech. Plan. Sect., Base Sheet Prep. Group, to same, Br. of Photogr., Tech. Plan. Sect., Photogr Photo Lab

Wilbur E. Willeford, CT, Br. of Photogr., Tech. Plan. Sect., Photogr. Contracts & Review Unit, to same, Br. of Photogr., Photogr. Oper. Sect.
Gary G. Sanders, CT, Br. of Photogr., Tech. Plan. Sect., Photogr. Contracts & Review Unit, to same, Br. of Photogr., Photogr. Oper. Sect.

Promotions

Dan G. Canfield, SC, Br. of Photogr., Photogr., Oper. Sect, GS-13
Jerold D. Combs, same as above
Allan R. Kohrmann, C, Br. of F.S., FSIS, GS-11
Bruce A. Bauch, C, Br. of P&P, Program Control Section, GS-11
Eddy L. Usery, C, Br. of Photogr., Photogr. Oper. Sect., GS-11
John E. Smith, SC, Br. of Photogr., Tech. Plan. Sect., Photocontrol Req. Unit, GS-12
Donald E. Sidwell, SC, Br. of Photogr., Tech. Plan. Sect., Photogrammetric Contracts & Review Unit, GS-12
John D. VanHorn, SC, Bro. of Photogr., Photogr. Oper. Sect., GS-12
Jerry W. O'Brien, CT, Br. of F.S., Field Dist., GS-11
Douglas E. Maus, same as above
Michael D. Jones, C, Br. of Carto., Carto. Sect., Editing Unit, GS-11
Denise D. Coleman, CT, Br. of Photogr., Photogr. Oper. Sect., GS-5
William E. Corey, Jr., CT, Br. of Photogr., Photogr. Oper. Sect., GS-6
Dwayne M. Sawyer, C, Br. of Photogr., Photogr. Oper. Sect., GS-12
Peggy S. Hughes, CT, Br. of P&P, NCIC-M, User Services Team, GS-6
Charles A. Scott, C, Br. of Carto., Carto. Sect., Off. of the Sect. Chief, GS-12
Victor P. Taipale, CT, Br. of F.S., Field Dist., GS-6
Lance A. Barney, CT, Br. of F.S., Field Dist., GS-6
Mary A. Dickey, CT, Br. of Carto., Carto. Sect., Comp. Unit, GS-5
Mary B. Childs, CA, Br. of Carto., Carto. Sect., Comp. Unit, GS-3
Linda M. Wools, CT, Br. of Photogr., Photogr. Oper. Sect., GS-5
Leticia A. Sanchez, Clerk-Typist, Off. of the Chief, GS-3

Reassignment

Wilbur E. Willeford, CT, Br. of Photogr., Tech. Plan. Sect., Photogrammetric Contracts & Review Unit., GS-11
Gilbert O. Schreiner, same as above
Everette E. Reppond, same as above
Earl R. Horsefield, GS-9, same as above
Gary G. Sanders, same as above
Edward F. Haas, CT, GS-11, Br. of Photogr., Tech. Plan. Sect., Photogr. Contracts & Review Unit

****

RETIREMENTS IN OTHER CENTERS

Regina B. Finch, EMC, 5/31/80
Jerry B. Turner, RMMC, 7/26/80

****

Personnel selected for the Winter-over Project at the South Pole are:

Kenneth W. Murphy, Jr., EMC
Alan W. Tinkham, RMMC
Anna C. M. Rognlie (Alternate), EMC

****

By request, the Cartographer's Prayer is repeated:
O Lord, let me draw more today than I can erase tomorrow.

From: Photogrammetric Engineering & Remote Sensing in Florida

****